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# Impact of Economic Denial Measures on the USSR

An Intelligence Assessment

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January 1980

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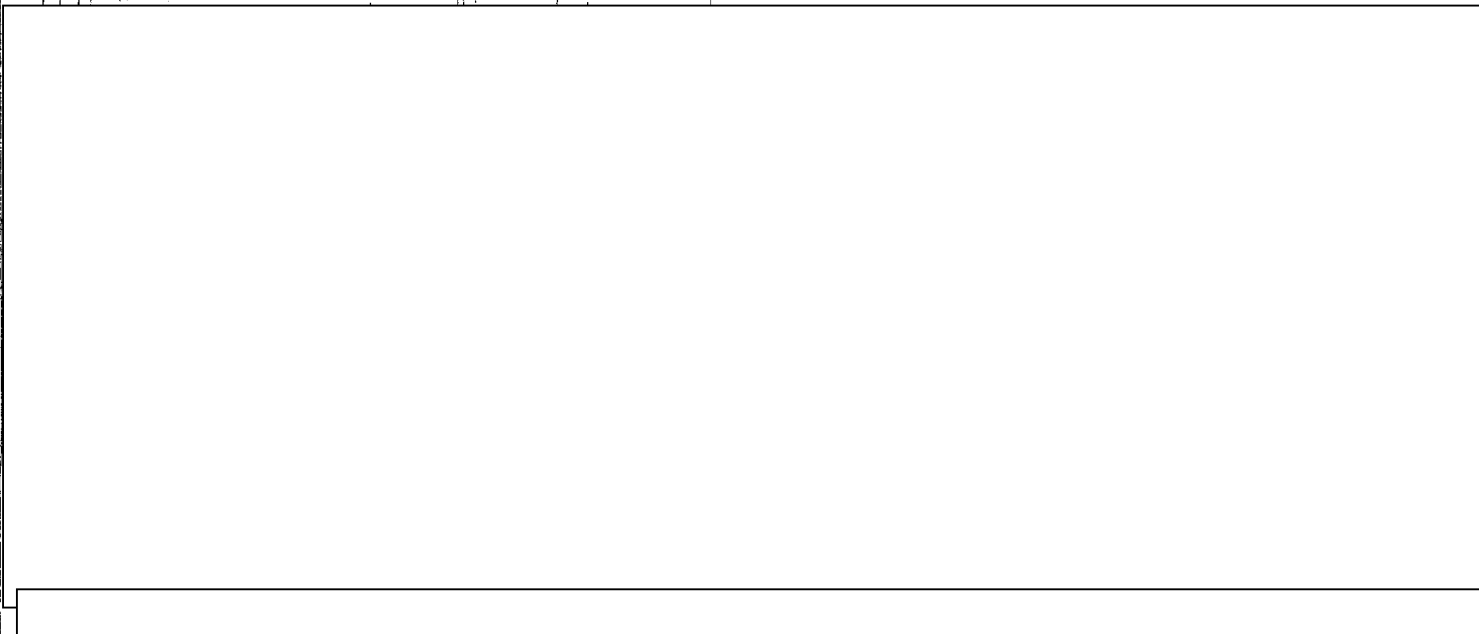
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# Impact of Economic Denial Measures on the USSR ( )

## An Intelligence Assessment

*Information available as of 14 January 1980  
has been used in the preparation of this report.*

This paper was prepared by analysts in the Office  
of Economic Research. Comments and queries are  
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This paper was coordinated with the Office of  
Political Analysis. ( )

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ER 80-10037  
January 1980

## Impact of Economic Denial Measures on the USSR ☐

### Overview

The impact of economic denial measures on the USSR depends critically on whether (a) the United States acts alone or is joined by other major suppliers and (b) the measures are enforced for a year or a few months or are continued for several years. Acting alone, the United States can hurt the USSR appreciably only by its grain export embargo and, to a lesser extent, by cutting off critical oilfield exploration and development equipment. The effect of even a one-year denial of grain on Moscow's consumer programs will be marked. A longer term curb on US grain would be even more effective if other producing countries cooperated. These countries are capable of stepping up production to meet Soviet import requirements over a period of several years. A combination of Western countries could severely impair Soviet economic growth by refusing to sell steel and steel pipe, metallurgical equipment, and a broader range of oil and gas equipment. Except for steel, however, the denial would have to be maintained for a prolonged period to have a substantial effect. Finally, while a widespread boycott of the Moscow Olympics would not hurt the USSR economically, it would tarnish the leadership's image badly. ☐

Of the measures introduced or suggested in the aftermath of the Soviet invasion of Afghanistan, three (grain embargo and denial of superphosphoric acid and fishing rights) would impact mainly on Soviet plans to upgrade consumer diets. Four measures (denial of oil and gas equipment, metallurgical equipment, communications and automotive equipment and computers, and specialized steel products)—if supported by other Western suppliers—would impinge on Soviet efforts to eliminate bottlenecks that are holding down Soviet economic growth. Limits on Western credits would also retard Soviet growth by interfering with plans to modernize the Soviet economy across the board with the help of Western equipment and technology. Finally, a proposed boycott of the Olympics would be a political setback for Moscow and deny the USSR some hard currency. ☐

A review of these measures suggests that a one-year grain embargo would force meat consumption in the USSR down to the level of the early 1970s, which would have an immediate impact on consumer perceptions. A continued denial of Western grain would severely curtail the Brezhnev

livestock program in the 1981-85 period. Losing the superphosphoric acid would reduce the availability of fertilizer (and thus grain) only marginally. The impact of a denial of fishing rights would also be minimal, even if Canada and Japan cooperated with the United States. The Soviet Union's catch in the waters belonging to these countries has been declining, and the USSR probably can move elsewhere to maintain its production. ☐

Although the United States is the predominant manufacturer of petroleum equipment, the USSR probably could satisfy most of its needs from other Western countries if they did not cooperate with a US embargo. In any event, a brief embargo would have little impact. Continued denial of US petroleum equipment technology and know-how—if at least partially supported by other countries—would force a more rapid decline in Soviet oil production than we now expect and greatly reduce the chances that the decline could be slowed or stemmed in the late 1980s and beyond. ☐

Because the steel industry ranks second only to energy as a Soviet problem area, Western denial of steel products could have a substantial impact on domestic steel supplies for several years at least. In the long term, a denial of Western help in building up the Soviet steel industry would severely impede Soviet efforts to modernize that industry and slow improvements in the technological level of machinery output. It would delay the completion of several projects necessary (a) to produce quality steels that the Soviet economy requires in growing amounts and (b) to eliminate Soviet dependence on imports. In addition, a long-term denial of steel pipe would seriously interfere with Soviet pipeline construction and cut the growth of gas production in half—a loss equal to about 250,000 barrels of oil per day. ☐

Curbs on Soviet purchase of Western computers, communications equipment, and automotive production equipment would have little economic impact unless all important suppliers cooperated and the curbs were maintained for an extended period of time. The effects would be felt to a degree in oil exploration, and production would be disrupted in certain new plants that have been built with Western help. ☐

A short-term interruption of officially supported Western credits to the Soviet Union would have little economic impact. The USSR, if necessary, could expand commercial borrowings and sell more gold. But Moscow probably counts on financing a large part of its machinery imports in the 1980s with official long-term credits. If Western governments and private

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banks refused to extend new credits, the Soviet Union would not be able to buy more in the West than it could pay for from current earnings—which we expect to fall drastically as Soviet oil exports decline. A boycott of the Olympics by major Western nations would have almost no effect on Soviet hard currency earnings because most of the earnings from tourism and broadcast rights have been prepaid. But such a boycott would humiliate the leadership and deprive the USSR of the prestige and propaganda opportunities it clearly hopes to extract from a well run, noncontroversial Olympics. ☐

For a discussion of the interests and vulnerabilities of the Western developed nations vis-a-vis the USSR, see *Political and Economic Positions of COCOM and Other Developed Nations on the Afghan Crisis*,  January 1980,

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## Impact of Economic Denial Measures on the USSR ☐

### Grain ☐

The US short-term embargo on grain will have a major negative impact on the Soviet livestock program and on meat production. Since little grain is available from other sources, the US denial is tantamount to a total Western embargo. ☐

The 1979 grain crop of 179 million tons has left the USSR roughly 60 million tons short of what we believe is needed to sustain the momentum of Brezhnev's very important livestock program while maintaining the currently low level of carryover stocks. Because of port capacity constraints, however, imports cannot exceed 40 million tons. ☐

The USSR has bought 39 million tons of grain, soybeans, and soybean meal for delivery during the current marketing year (July 1979-June 1980). About 21 million tons remain to be delivered, including about 17 million tons (16 million tons of grain) already contracted for from the United States. Of the 25 million tons the US authorized the Soviets to buy last fall, the USSR has contracted for 22 million tons for delivery by the end of June 1980, and for 3 million tons for delivery in July-September 1980. ☐

Despite the embargo, the United States will allow shipment of the 8 million tons specified in the US-USSR Long-Term Grain Agreement. Of this total, 5 million tons have been shipped. Even though the remaining 3 million tons are permitted under the US embargo, the ILA—which controls East Coast and Gulf ports—has announced it will refuse to load grain destined for the USSR. Since the West Coast longshoreman's union has not yet agreed to the ILA ban, a part (if not all) of the 3 million tons could be shipped. ☐

Except for Argentina, major grain exporting countries are clearly supporting the US embargo by agreeing not to sell additional grain to the USSR. In any event, large quantities of grain would not have been available from alternative suppliers before the third quarter of

calendar 1980 (Table 1). The EC is the only exporter now with large uncommitted supplies. Australia and Canada could only marginally expand exports above current commitments before next summer because of logistical constraints; Argentina's harvest is already totally committed until spring, when 500,000 tons of corn and about 750,000 tons of sorghum may be available. <sup>1</sup> Moscow can probably pick up roughly 200,000-300,000 tons of grain from smaller suppliers on the world market by purchasing previously contracted grain at higher prices. Transshipment and diversion of embargoed grain would, at a maximum, yield less than 1 million tons. Thus about 2.5 million tons of additional grain might be available to the USSR before midsummer, reducing the domestic shortfall from 60 million tons to between 35 and 37 1/2 million tons. <sup>2</sup> ☐

### *Coping with the Shortfall*

Moscow has the following options in adjusting to the shortfall:

- Draw down its small cushion of grain stocks (estimated at 10-15 million tons). <sup>3</sup>
- Reduce feed rations per head of livestock by cutting rations.
- Reduce livestock inventories, especially hogs and poultry.
- Increase the amount of flour milled from a ton of grain, thus reducing the quality of bread.
- Increase meat imports, although world supplies are tight. ☐

<sup>1</sup> Argentina reportedly will be in a position to export substantially more grain after June 1980. ☐

<sup>2</sup> These estimates assume that the remaining 3 million tons of grain permitted by the US Government embargo are shipped. ☐

<sup>3</sup> These are carryover stocks and do not include the release of grain from strategic reserves. Some unknown quantity of grain is held to supply the military forces, as well as civilian consumers, with needed food in time of war. Based on past behavior, we believe the Soviets would not release these reserves in peacetime ☐

Table 1

Million Metric Tons

**USSR: Purchases and Imports of Western Grain, Soybeans, and Soybean Meal  
July 1979 - June 1980**

Source	Orders Placed by 1 January 1980 <sup>1</sup>	Amount Shipped Through 4 January 1980	Amount Remaining To be Shipped	Potential New Orders	Total Expected Imports, July 1979- June 1980
<b>Total</b>	<b>39.0</b>	<b>18.0<sup>1</sup></b>	<b>7.0<sup>1</sup></b>	<b>2.50<sup>1</sup></b>	<b>25.0 - 27.5<sup>1,2</sup></b>
<b>Of which:</b>					
United States	31.0	14.0	3.0 <sup>1</sup>	..	17.0 <sup>1</sup>
Canada <sup>1</sup>	2.6	1.1	1.5	..	2.6
Australia <sup>1</sup>	2.3	0.9	1.4	..	2.3
European Community <sup>1</sup>	0.4	0.2 <sup>1</sup>	0.2 <sup>1</sup>	..	0.4
Argentina	2.2	1.5 <sup>1</sup>	0.7 <sup>1</sup>	1.25 <sup>1</sup>	2.2 - 3.5 <sup>1</sup>
Other	0.5	0.3 <sup>1</sup>	0.2 <sup>1</sup>	1.25 <sup>4</sup>	0.5 - 1.75 <sup>4</sup>

<sup>1</sup> Estimated.

<sup>2</sup> Assuming that 3 million tons permitted under United States embargo are shipped, despite the ban currently imposed by the ILA.

<sup>3</sup> These countries have stated they will not sign additional grain contracts with the USSR.

<sup>4</sup> Includes estimated deliveries via transshipment and diversion of embargoed grain.

With the embargo, Moscow will probably draw down stocks as far as possible and still be forced to reduce livestock feeding. This alone could lead to a 1-1.5 million-ton reduction in meat output from the 1979 level. Under similar past situations Moscow has traditionally responded to crop shortfalls by resorting to distress slaughtering. Increased slaughter leads to a one-time increase in meat production. If the Soviets follow past patterns of behavior in the face of a major short-fall in grain availability, a 10-15 percent reduction in hog numbers, for example, could lead to a 1 million-ton increase in meat production. The combined effects of decreased feed availability and increased slaughter rates would reduce meat output by at least 1/2 million tons in 1980. Per capita meat consumption would thus be about the level of the early 1970s. In addition to the reduction in the availability of meat, of possibly more importance is the psychological blow to the Soviet population when it learns of the extent of the embargo from the VOA, BBC, and the Munich radios. ☐

**Longer Run Outlook**

Meat production problems will continue into 1981. A return to average crops in 1980 and 1981 would

improve the feed situation and could add up to 2 million tons to meat production in 1981. The need to rebuild herds, however, would offset two-thirds of this potential gain. The higher meat output possible in 1981 would still be below the 1978 level. ☐

Over the next few years we believe Soviet grain import needs will range from 20 million to 30 million tons annually, assuming average weather and a continued leadership commitment to expand output of livestock products. The US-USSR Long-Term Grain Agreement, presently scheduled to end in September 1981, allows the USSR to purchase 8 million tons of grain annually from the United States. An additional 10-15 million tons annually probably would be available from non-US suppliers, depending on their level of cooperation with the US embargo. If these imports are not enough, the resulting deficit could only be filled by additional quantities from the United States. Hence, even if the US exports the maximum of 8 million tons currently permitted under the LTA, the Soviet leadership might have to curtail the highly publicized livestock program already announced for the 11th five-year plan period (1981-1985). ☐



## Phosphate Fertilizer

According to a 20-year fertilizer exchange agreement concluded in 1973, Occidental Petroleum Corporation was to sell the USSR 1 million tons/year of superphosphoric acid, purchasing in return ammonia, urea fertilizer, and potash. The Soviets were to use the superphosphoric acid to produce liquid complex fertilizers with a fairly high (34 percent) phosphate nutrient content. The liquid complex fertilizers were to be produced in seven installations ordered from French firms in 1976. Construction of at least three of these plants was completed by yearend 1979. ☐

The USSR has experienced chronic shortages of phosphate fertilizers for many years. More than half of Soviet available land is deficient in phosphorus, which is needed for rapid seed formation, plant maturation, and resistance to cold temperatures—desirable characteristics in the short Soviet growing season. ☐

A short-term embargo—either US-only or all-Western—would hurt the USSR to some degree since less fertilizer would be available for Soviet crops, including grain. If the shipments of US superphosphoric acid to the Soviet Union fail to materialize in 1980, the Soviet liquid complex fertilizer plants probably would be unable to operate or could operate at only a small fraction of capacity. The maximum loss of such fertilizer would amount to an estimated 680,000 tons of  $P_2O_5$  and 200,000 tons of nitrogen. If we assume that all this fertilizer would have been applied to grain, the potential loss of grain would amount to 2-3 million tons. Because of construction delays, however, the Soviets would experience a substantial shortfall in the embargo on shipments of superphosphoric acid from the US. The potential impact on grain output of such a shortfall would therefore be somewhat less than the 2-3 million tons indicated above. ☐

The Soviets could offset to some degree a longer-term embargo imposed only by the US by importing from alternative suppliers a less concentrated form of phosphoric acid. A multilateral long-term embargo would force the Soviets to produce the fertilizer raw materials themselves and could set back their liquid complex fertilizer program by 3-5 years. ☐

**Table 2**

Thousand Metric Tons

### Soviet Catch and Quotas in US Waters

	1975	1976	1977 <sup>1</sup>	1978	1979	1980
Catch in US waters	933	422	382	373	278 <sup>1</sup>	..
US catch as percent of total	9.0	4.0	4.0	4.0	3.1	..
Quotas in US waters	..	..	650	583	540	75
Percent of quota taken	..	..	59	64	51	..

<sup>1</sup> The US 200-mile economic zone was established on 1 March 1977.

<sup>2</sup> Preliminary.

### Fishing Restrictions in US Waters

President Carter's decision to reduce Soviet fishing quotas in US waters from the previously announced 1980 quota of 420,000 tons to 75,000 tons will have only a small impact on overall Soviet fishing operations. During 1979, the Soviet Union harvested an estimated 9.0 million tons of fish, or roughly 12 percent of the world catch of 72 million tons. Of this total only about three percent, or 278,000 tons, came from US waters (see Table 2). ☐

The 1979 Soviet catch in US waters represents a sharp decline from Soviet operations there in the mid-1970s. Even before the imposition of the US 200-mile economic zone on 1 March 1977, Soviet fishing vessels began to reduce their operations in US waters. During 1975, the Soviet Union took over 900,000 tons of fish in US waters—roughly 325,000 tons in the Atlantic and 600,000 tons in the Pacific. More than 200 Soviet fishing vessels operated in the Atlantic alone. ☐

Since the US 200-mile economic zone went into effect, however, the Soviet Union has largely retreated from US fishing grounds and concentrated on other fishing areas around the world. Since 1977, the Soviet fish

catch in US waters has dropped to about one-third its former level and, more importantly, to about 50-65 percent of the allowed US annual quotas. Some of the reasons for this decline are:

- The USSR has expanded fishing operations off West Africa, where the Soviet catch has jumped from 1.5 million tons in 1975 to over 2 million tons in 1978. Extensive new fishing aid agreements in this area have given the Soviets access to new fishing grounds as well as political/economic leverage in the Third World. [ ]
- Soviet fishing fleets have increased their exploitation of home waters. Since 1975, the Soviet catch in home waters has increased by over 500,000 tons. [ ]
- The high cost of operating in the Northwest Atlantic has made fishing in other areas more lucrative. [ ]

As a result, President Carter's decision to grant the Soviets a fishing quota of only 75,000 tons in 1980 will result in a net reduction of only about 200,000 tons from their catch last year—an amount that probably could be made up elsewhere. In terms of the animal protein in the Soviet diet, this shortfall represents less than 1 percent of the present consumption of animal protein in the average Soviet diet. [ ]

A combined boycott of Soviet fishing vessels by Canada and Japan probably would not have much of an impact of the total Soviet fish catch. Although the Soviet fish quota in Japanese waters last year was 650,000 tons, the Japanese quota in Soviet waters was 750,000 tons. Any ban on Soviet fishing vessels by Japan would undoubtedly lead Moscow to retaliate. The Soviet fishing quota in Canadian waters was roughly 150,000 tons last year—about 2 percent of the USSR's total catch. Canadian fishing vessels do not operate in Soviet waters. [ ]

### Petroleum Equipment and Technology

A short-term US-only embargo imposed in 1980 would have some impact on Soviet oil production over the next several years. Much of the US equipment ordered in recent years to stabilize or increase output has been delivered, for example, electric submersible pumps. The major exception is the \$160 million Dresser drill bit plant. Only about one-third of the \$100 million in

equipment—part of which will originate in Western Europe—has been delivered to the USSR. A short-term embargo of the undelivered equipment would set back the plant's start-up date beyond 1983. [ ]

No other major US contracts which would affect production in the short-term are outstanding. Denial of other items such as additional pumps, drill bits, drill pipe, rigs, and well logging equipment would hamper oil operations but have little effect on near-term production. The impact of a short-term embargo by the entire West might have a somewhat greater effect on production, although how much is uncertain. None of the gas lift equipment ordered from France for the West Siberian oilfields (about 85 percent of the total package) has been delivered. The US subcontractor has shipped most of its small share of this equipment. The gas lift equipment is designed to reduce the decline in oil output by as much as 200,000-300,000 b/d and increase the share of oil eventually recovered. [ ]

A short-term embargo by the United States alone would have no impact on Soviet gas production since the Soviets buy very little from the US. The USSR gas industry, however, is greatly dependent on other Western countries for large-diameter pipe, compressors, and valves. A short-term embargo by the entire West would probably begin to take effect within the year, depending on Soviet equipment inventory. But the USSR probably could recover rather quickly from a short-term cut-off by accelerating its purchase of such equipment once the embargo were lifted. [ ]

A longer term embargo could have a major impact on Soviet oil production in the late 1980s only if sustained for many years with some cooperation from our allies. Although US firms dominate the world market for petroleum exploration and production equipment, their position could be seriously eroded in two or three years as other Western suppliers enter the market. If, however, a US long-term embargo were to be at least partially supported by other Western countries, Soviet oil production probably would decline more rapidly than we now expect, greatly reducing the chances that the fall could be slowed or stemmed in the late 1980s

and beyond. Moreover, the lack of Western equipment, technology, and expertise for 2 to 3 years would have a greater impact in the latter half of the 1980s as Western assistance is vitally needed for deep onshore and offshore exploration and production. ☐

The effect of a long-term embargo of Western gas equipment would be severe and could cut the yearly growth in gas production during 1981-85 in half— from 7 percent to 3.5 percent, or about 250,000 b/d of oil equivalent. The impact of such a decline would be magnified because Moscow is counting on rapid growth in gas production to offset stagnating oil and coal output. A long-term cutoff would accelerate progress within CEMA to develop gas pipeline equipment comparable to that currently purchased abroad—an uncertain prospect at best. ☐

### **Steel and Steel Products**

The United States does not now and will not sell steel to the USSR. A Western embargo, however, would have serious consequences for the USSR. Soviet steel imports during 1975-78 averaged over \$2 billion per year and apparently were substantially higher in 1979. Imports were split roughly equally between (a) large-diameter steel pipe for gas and oil pipelines and (b) a wide range of other specialty steel products. ☐

Pipe imports support the USSR's ambitious pipeline construction program, especially for natural gas transmission. The amount of domestic pipe production is uncertain, but the estimated 2 million tons imported from the West in 1979 probably accounted for about three-fourths of the USSR's large-diameter pipe needs. ☐

West Germany has long been Moscow's major source of large-diameter pipe, and West Germany's Mannesmann has built a pipe plant dedicated mostly to the Soviet market. In recent years Japanese exports have risen sharply; in 1979 West Germany and Japan split 75 percent of the Soviet pipe market. Italy and France supplied most of the remaining portion. Soviet pipe purchases until the mid-1970s mainly were tied to gas deliveries to Western Europe under gas-for-pipe deals, while purchases since 1975 have been straight commercial transactions under long-term credits. ☐

### **Impact of a Pipe Embargo**

A multilateral short-term embargo introduced in 1980 by the USSR's pipe suppliers would delay the pipeline construction program only marginally. We do not know how much pipe the Soviets have stockpiled, but an inventory of several months seems likely. A longer multilateral denial of large-diameter pipe could have a disastrous impact on Soviet pipeline construction and, in turn, gas production. As noted earlier, a total embargo would halve the rate of increase in gas production. ☐

### **Effect of an Embargo on Nontubular Steel**

Imports of nontubular steel products grew steadily during the 1970s to a level of more than 2 million tons annually as the Soviet steel industry began to expand more slowly. Production in 1979 actually fell for the first time since World War II, leading to a substantial jump in steel imports. Although nontubular steel imports represent less than three percent of rolled steel output, the substantial amount of hard currency spent for steel imports testifies to their importance. ☐

An embargo by the USSR's steel suppliers—West Germany, Japan, Belgium, and France—could have a major impact on the USSR. Steel imports are required to overcome current production shortfalls and are probably needed soon. In the long run the effect of a multilateral embargo would be even more serious. Moscow's dependence on the West for a key share of its steel supply will probably continue or even increase. The embargo would reduce supplies of an essential input to a wide range of Soviet industries. ☐

### **Metallurgical Equipment and Technology**

A short-term embargo of metallurgical technology for both the steel and aluminum industries would have little impact if imposed only by the United States because similar technology is available from other Western countries. Some sacrifice would be involved for the Soviets because some US technology has certain technical advantages and because of the convenience of relying on a leading supplier. ☐

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The two most prominent and immediate deals involving the United States are the Armco contract for building a facility at Novolipetsk to produce 480,000 tons of electrical steel and the Alcoa negotiations to construct a 400,000 ton per-year aluminum smelter in Siberia. The Soviets would turn to Armco's French competitor or perhaps to Armco's Japanese partner if Armco dropped out. Alcoa has already canceled negotiations with the Soviets; the latter will probably opt for French technology if France does not participate in the embargo. ☐

A short-term embargo of metallurgical equipment and technology by the entire West would more seriously affect the Soviet steel industry. The embargo would set back schedules not only for the Novolipetsk project but also for a number of other projects designed to produce the quality steels needed in growing amounts and to reduce Soviet dependence on imports. The slowdown in steel industry growth in recent years has exacerbated the problem of import dependence. (As mentioned earlier, the Soviets are now spending over \$2 billion annually for Western steel and steel products.) ☐

A particularly serious blow would be suffered by the USSR if West Germany were to back out of contracts for the project at the Kursk integrated steel plant based on direct reduction technology. The USSR is counting on the Kursk plant as a major new source of high quality steel including bearing, spring, alloy, and structural steel grades. An embargo would also entail sacrifice for the West German firms, which have already incurred substantial expenses in equipment manufacture. ☐

A longer term US-only embargo would increase Soviet reliance on alternative suppliers and probably eliminate US participation in technology and equipment transactions while having little effect on the Soviet economy. A longer term Western embargo would disrupt the on-going Soviet program to use Western technology to modernize the Soviet steel industry and adapt it to the changing needs of the economy. Without Western equipment and technology, the current state of dependence on imports of steel would be prolonged well into the 1980s. ☐

The consequences of a Western embargo of technology for the aluminum industry would be far less serious. The USSR already ranks as a leading world exporter of aluminum. Western participation in a new Siberian smelter is linked to increased exports, particularly to Western markets under compensation arrangements. The Soviets would accept slower growth in the aluminum industry because domestic consumers would not be hurt. In any event, the USSR would have little difficulty in expanding domestic smelting capacity as the need developed. By doing without Western technology, however, the Soviets would forgo some automation. Faced with manpower shortages in the metallurgical industries and elsewhere, they have been particularly attracted by Alcoa's highly automated technology. ☐

#### **Computers, Communications Equipment, and Motor Vehicle Production Technology**

##### **Computers**

A US-only short-term embargo of computer equipment would cause the USSR some inconvenience. For example, the USSR wants additional computer equipment from CDC to expand the seismic processing capabilities of an existing CDC computer at Narofominsk (CYBER-73) by 50 percent. Denial of this equipment will inhibit Soviet ability to process petroleum exploration data. In the longer run US denials would have little effect since most kinds of computer equipment can be acquired from other COCOM countries. ☐

An embargo by the entire West could have a substantial impact. For example, the USSR urgently needs help in the development of software, and a US firm, Applied Data Research, has been licensed to provide the USSR with software packages that can be used to develop other software. In addition, computer spare parts are needed to maintain US computers at the Kama Truck Plant. Without these parts, production at the Kama foundry could be expected to slow down progressively. Similarly the USSR has many large Western computer systems in place, and lack of spares would disrupt a number of civilian applications. ☐

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Finally, the USSR has been buying Western minicomputers in fairly large numbers for several years (546 during 1972-78). Many of them are used in industrial R&D and process control. Such purchases are certain to continue for many years, possibly in increasing volume. Joint Western denial of such systems would affect R&D progress in many areas until domestic production picks up the slack. ☐

#### ***Communications Equipment***

A unilateral embargo of communications equipment by the United States would have little effect. The United States is not a major supplier to the USSR, and equipment of interest to the USSR is available from other COCOM and non-COCOM countries. The USSR does import selectively from the West, both to improve its technology and to complete specific projects. For example, France recently contracted to provide the USSR with a multimillion dollar communications technology package that includes digital telephone switching systems and their production technology. With French and other Western cooperation in the embargo, much of this and other communications technology could be prevented from reaching the USSR. A short-term embargo would have little effect, since by their nature significant improvements in telecommunications require a long time to implement. A long-term embargo would delay but not prevent the modernization and expansion of Soviet communications. ☐

#### ***Motor Vehicle Production Technology***

Most automotive production technology is available from other Western countries, although in a few specialized instances the USSR prefers US machinery. For example, the United States has contracted to provide a second engine assembly line at the Kama Truck Plant. With a US-only embargo, the planned expansion of diesel engine production would be delayed for the next several years and interrupt a program to which the Soviets have attached a high priority. With a Western embargo the delay would be even longer and more costly since the Soviets would have to allocate their own resources to the effort. ☐

#### **Credit**

A unilateral cutoff of credit by the United States would have a negligible economic impact on the USSR. A ban on US lending would apply only to US commercial banks because the US ExImbank has been prevented from extending credits to the USSR since 1974. US banks are not important lenders to the Soviet Union. As of September 1979, US banks and their foreign branches had only about \$900 million in loans outstanding to the Soviets, roughly 5 percent of the USSR's total external debt. Furthermore, Soviet use of US bank credits has declined by 30 percent over the past year. Foreign branches of US banks account for more than half of US bank lending to the Soviet Union. ☐

Western governments have provided the USSR with \$16.1 billion of officially supported credits including those amounts committed to signed but as yet uncompleted contracts (see table 3). An additional \$6.9 billion has been offered for future orders. Moscow has borrowed an additional \$12.8 billion from private sources. Nonetheless, a cutoff in all Western lending would not seem to pose severe problems to the Soviets in the short run. A withdrawal of credit offers by Western governments would have practically no impact on Soviet imports since these credits have not been committed to signed contracts. Even a revocation of guarantees committed to signed contracts would not seriously threaten Moscow. The Soviets could forgo some planned imports of machinery and equipment in the short run since they have a backlog of already imported machinery and equipment awaiting installation. The USSR could finance priority imports by new commercial borrowings. More likely the USSR would draw down deposits in Western banks and/or step up gold sales. In fact, Moscow could channel much of its reserves and revenues from current gold sales previously earmarked for grain purchases to meeting other import needs. A freeze on Soviet assets in the West would probably present Moscow with the greatest problems in financing its trade in the short term since it would undermine its cash position. ☐

**Table 3**

Billion US \$

**Estimated Western Financial Exposure to the USSR<sup>1</sup>  
as of 30 June 1979**

	By Commercial Banks	Government Guarantees <sup>2</sup>	Total Exposure
<b>Total</b>	<b>12.8</b>	<b>16.1</b>	<b>28.9</b>
United Kingdom	2.8	1.2	4.0
West Germany	1.6	3.9	5.5
France	2.2	4.3	6.5
Italy	0.9	2.4	3.3
Japan	0.4	2.7	3.1
Switzerland	0.8	0.2	1.0
Austria	0.3	0.5	0.8
United States	0.4	0.4	0.8
Belgium-Luxembourg	1.0	0.1	1.1
Other <sup>3</sup>	2.4 <sup>4</sup>	0.4 <sup>4</sup>	2.8

<sup>1</sup> The estimates of country financial exposure to the USSR differ from our estimates of Soviet external debt at yearend 1978 (\$17.2 billion, of which \$10.3 billion is owed to private lenders and \$6.9 billion to official lenders) for the following reasons:

(a) Commercial bank lending statistics include loans to CEMA's International Investment Bank (IIB) and International Bank for Economic Cooperation (IBEC).

(b) Government-guaranteed totals include both drawn credits and undrawn commitments on signed contracts.

<sup>2</sup> Estimated from statistics reported by the Berne Union, which include both credit principal and future interest payments. We decapitalized these data by assuming average credit terms of 8-year maturity and a 7.2 percent interest rate.

<sup>3</sup> Other bank lending includes claims of banks in Canada, Sweden, the Netherlands, Ireland, and offshore branches of US banks in the Bahamas, Cayman Islands, Panama, Hong Kong, and Singapore.

<sup>4</sup> Other government-backed lending includes commitments from Canada, Denmark, Finland, the Netherlands, Norway, Spain, and Sweden.

A long-term credit embargo would cause serious difficulties for the USSR. Moscow plans to finance a major share of machinery and equipment imports in the 1980s with official long-term credits. It is now or soon will be holding negotiations with major Western governments on multiyear credit lines. ☐

A refusal by Western governments to extend new credit would not only deny Moscow access to long-term credits at favorable rates but also would have a detrimental impact on commercial bank lending. Moscow, for its part, would probably be reluctant to

incur a large increase in its commercial debt given the less favorable terms available from Western commercial banks. ☐

An extended credit boycott would hit the Soviet economy hard. Lacking Western credits, Moscow would be unable to acquire Western resources in excess of its own earnings from exports, services, and gold sales. In particular, the USSR would be unable to use Western credits to cushion the impact of what is expected to be a rapid falloff in earnings from oil exports in the early 1980s. ☐

**Boycotting the Moscow Games**

US refusal to participate in the Moscow Olympics as a matter of principle would be a major embarrassment to the Soviet leadership. The embarrassment would be greatly compounded should other countries follow the US lead. Without US participation, the Games would lose much of their importance and edge. Moscow wanted the Games in large part for political reasons and would find—with a US boycott—that its actions in Afghanistan had cost it at least some of the prestige and propaganda opportunities it had hoped to obtain. ☐

The Soviets would blame the United States for politicizing the Games and attempt to explain away US absence as part of an ongoing bilateral disagreement. Moscow would find it difficult to explain to the Soviet public the absence of several Western participants. In any event, a scaled-down version of the Games would be held, with "friends and allies," the nonaligned, and at least some developed countries participating. ☐

It is too early to tell whether West Europeans will join a boycott of the Moscow Olympics. France and West Germany have said they will not but in recent consultations West Germany has left the possibility open. Many governments point out that they cannot entirely control their Olympic committees, but the Netherlands has reminded its allies that pressure can be brought to bear (the Netherlands, among others, boycotted the 1956 Olympics after the Hungarian revolution). Confidence in a US boycott would probably increase the likelihood of Western support. ☐

All Olympic Games have important political implications, particularly for the host. This is especially true for the Soviet Union, which views its sponsorship of the Games as a significant boost to its prestige and even legitimacy in the eyes of other countries. Domestically, mass sport has been an important tool of mobilization since the 1920s, and finally holding the Olympics on Soviet soil will focus international attention on the USSR and generate pride in a populace sensitive to the meaning of political sport. Thus, a boycott could prove extremely troubling to the leadership and possibly could result in a popular perception that the country had been humiliated by the regime's actions in Afghanistan. ☐

Inside the USSR, a boycott could, by itself, hearten some dissidents. But the domestic policies that might be adopted by a regime determined to settle the Afghan crisis militarily would probably worsen the position of the dissidents and the general public alike. Internationally, a boycott would keep the Afghan issue alive and force the Soviets to face a continuing barrage of criticism from some sections of the international community. The Soviets, however, would also be able to play the role of an aggrieved party before a partially sympathetic international audience and would try to use international disagreements over the boycott to exacerbate tensions between the United States and other nations, including some close US allies. ☐

We believe the economic impact on the USSR of an Olympic boycott would be small. In support of its bid to host the 1980 Games the Soviet Union has been engaged in a massive \$3 billion building and renovation effort involving 99 sports and tourist construction projects. This ambitious program has been under way at a time when the country already faces a serious construction backlog and has been kept on track only by importing construction teams from other areas of the country and overseas and by curtailing non-

Olympic building in Moscow. The USSR also is training as many as 150,000 workers to cater to the influx of tourists expected for the Games, including 200,000 foreign visitors. Nonetheless, Soviet officials will claim, with some justification, that these preparations will not have been wasted if the Olympics are not held. Moscow needs public buildings and facilities, more housing, and better tourist accommodations in any case. From the beginning, the Soviets have attempted to hold down superfluous spending by not building facilities that could only be used for the 1980 show. ☐

In the main, losses from a Western boycott of the Games would be limited to a reduction in the roughly \$250 million in anticipated hard currency revenues, largely from Western broadcasts rights and from tourism. Receipts from the United States could total \$100 - \$125 million, and another \$100 million could come from West European and Japanese travelers. A major portion of this income (perhaps as much as two-thirds) is in hand, however, and the Soviets in the event of a boycott would balk at refunding any cash already received. Most of the \$74 million due for US broadcast rights, for example, has been paid. (NBC's contract with the USSR contains a "force majeure" clause that might apply if the Games were boycotted. Moreover, NBC has reportedly covered most of its out-of-pocket expenses in the event the Games do not take place with a political risk insurance policy with Loyds of London.) Moreover, Westerners wishing to attend the Games apparently were required to prepay Olympic tour fees by the end of 1979. For example, all Americans traveling to Moscow were required to sign up for a minimum \$1,500 tour package, including air fare. Barring an outright cancellation of the Games, Moscow would argue that foreign visitors are welcome regardless of individual country participation. ☐

## Appendix

## OECD Exports to the USSR

Table A-1

Million US \$

## Total OECD Exports to the USSR

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Reporter									
<b>Total OECD</b>	<b>2,602</b>	<b>2,598</b>	<b>3,852</b>	<b>5,701</b>	<b>7,412</b>	<b>12,383</b>	<b>13,608</b>	<b>13,455</b>	<b>15,111</b>
Major exporters									
West Germany	422	461	712	1,183	1,856	2,824	2,685	2,789	3,141
Japan	341	378	504	485	1,102	1,624	2,252	1,934	2,502
United States	118	162	547	1,190	609	1,837	2,308	1,628	2,252
France	273	256	340	574	656	1,147	1,118	1,496	1,455
Finland	283	254	364	437	763	1,130	1,282	1,491	1,528
Italy	308	295	269	351	618	1,020	981	1,228	1,133
United Kingdom	234	206	216	230	257	459	432	607	812
Canada	98	125	286	292	30	402	543	338	478
Australia	70	69	99	242	239	352	484	333	NA
Austria	82	70	94	92	189	216	237	279	372

Table A-2

Million US \$

## OECD Exports of Agricultural Products to the USSR

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Reporter									
<b>Total OECD</b>	<b>196</b>	<b>247</b>	<b>917</b>	<b>1,568</b>	<b>696</b>	<b>2,063</b>	<b>2,642</b>	<b>1,885</b>	<b>2,325</b>
Major exporters									
United States	2	17	425	916	288	1,131	1,484	1,037	1,679
Canada	84	111	269	285	11	350	472	272	289
Australia	21	44	51	62	63	240	290	147	NA
France	9	8	63	132	92	88	141	127	48
Netherlands	10	10	11	22	27	29	34	66	26
Greece	22	14	24	25	48	57	58	65	70
Finland	17	19	37	32	59	46	54	53	53
Denmark	3	4	2	9	5	3	8	27	9
West Germany	1	0	6	35	29	21	28	26	15
Spain	5	1	2	1	14	27	24	23	15



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Table A-3

Million US \$

## OECD Exports of Corn to the USSR

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Reporter									
Total OECD	1	15	167	239	141	424	1,107	407	1,074
Major exporters									
United States	0	12	167	239	141	424	1,078	397	1,056
France	1	3	0	0	0	0	0	10	0

Table A-4

Million US \$

## OECD Exports of Wheat to the USSR

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Reporter									
Total OECD	83	126	450	857	160	1,130	710	740	608
Major exporters									
United States	0	1	159	555	124	667	250	427	356
Canada	83	110	241	235	9	276	318	265	252
Australia	0	15	31	39	23	186	142	49	NA
Sweden	0	0	0	0	4	1	0	0	0
Finland	0	0	0	1	0	0	0	0	0
France	0	0	16	17	0	0	0	0	0

Table A-5

Million US \$

## OECD exports of Soybeans to the U.S.S.R.

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Reporter									
Total OECD	0	0	52	69	0	3	125	162	217
Major exporters									
United States	0	0	52	67	0	3	125	159	216
Netherlands	0	0	0	0	0	0	0	3	0
West Germany	0	0	0	1	0	0	0	0	0

This table is Unclassified.

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Million US \$

**OECD Exports of Manufactures to the USSR**

	1970	1971	1972	1973	1974	1975	1976	1977	1978
<b>Reporter</b>									
<b>Total OECD</b>	<b>2,192</b>	<b>2,186</b>	<b>2,740</b>	<b>3,782</b>	<b>6,240</b>	<b>9,828</b>	<b>10,373</b>	<b>10,981</b>	<b>12,181</b>
<b>Major exporters</b>									
West Germany	413	453	699	1,131	1,804	2,776	2,621	2,726	3,065
Japan	328	366	492	468	1,047	1,556	2,151	1,862	2,427
Finland	243	208	295	368	650	998	1,161	1,371	1,411
France	257	243	270	427	543	1,033	959	1,351	1,392
Italy	292	281	256	345	599	983	959	1,201	1,072
United States	83	118	103	267	294	672	796	551	471
United Kingdom	201	184	197	210	230	431	397	543	649
Austria	79	67	91	91	187	211	237	279	371
Belgium/Luxembourg	50	61	80	176	348	328	252	238	314
Switzerland	50	47	69	96	141	179	200	234	243

**Table A-7**

Million US \$

**OECD Exports of Steel to the USSR**

	1970	1971	1972	1973	1974	1975	1976	1977	1978
<b>Reporter</b>									
<b>Total OECD</b>	<b>293</b>	<b>365</b>	<b>487</b>	<b>968</b>	<b>1,965</b>	<b>2,522</b>	<b>2,768</b>	<b>2,243</b>	<b>2,820</b>
<b>Major exporters</b>									
West Germany	144	187	208	411	744	1,023	744	746	1,012
Japan	45	69	87	137	484	548	1,062	550	726
Italy	4	22	30	94	239	384	407	340	311
France	45	23	37	118	123	209	197	248	251
Belgium/Luxembourg	10	24	44	119	245	215	164	155	193
Austria	18	16	23	28	55	50	58	70	87
United Kingdom	4	9	17	17	25	40	25	42	56
Spain	0	5	24	10	15	4	45	40	84
United States	5	2	0	14	8	6	28	18	10
Sweden	10	8	9	16	17	24	23	16	37

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